

Case Diagnosis

Shoulder Injury Related to Vaccine Administration (SIRVA) VS COVID Vaccination Induced Peripheral Neuropathy

Case Description

Patient was referred from orthopedics to pain management who referred patient to EMG clinic for evaluation of neuropathic symptoms. Patient reported trying multiple medications and a course of physical therapy which provided mild transient relief. She had her second COVID vaccine in the left glute without any reaction. Upon our evaluation, patient reported pain and burning in the left neck extending down the shoulder and arm stopping at the elbow. Physical exam revealed decreased range of motion at left shoulder and manual muscle testing revealed deficits due to pain. Sensation was diminished along the left shoulder and arm to the elbow. Left forearm sensation was preserved. Biceps and triceps reflexes were equal and symmetric.

MRI of left shoulder showed mild acromioclavicular joint arthrosis. No fracture or evidence of rotator cuff tear. MRI cervical spine showed small posterior disc protrusion on the left. EMG revealed no findings of cervical radiculopathy/peripheral neuropathy.

Discussions

Shoulder pain is a common transient side effect of vaccination. Infrequently, patients can develop prolonged shoulder pain and dysfunction following vaccination. The proposed mechanism is the unintentional injection of antigenic material into synovial tissues resulting in immune mediated inflammatory reaction. Careful consideration should therefore be given to appropriate injection technique. Whether the contents of the COVID vaccine could have induced this patient's symptoms is still in need of further study.

Conclusions

This is a case of SIRVA vs a specific COVID vaccine induced peripheral neuropathy.